

DOUBLE LAYER BLOCKS CAPABLE OF TURNING ENDLESSLY

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to magic balls and more particularly to a
5 double layer block structure in which the blocks are capable of turning endlessly
for forming one of different shapes.

2. Description of Related Art

A conventional magic ball comprises a plurality of small cubic blocks. The
drawbacks of the prior magic ball are monotony, complexity, being difficult of
10 disassembly and assembly after use, and being lack of entertainment. Thus, it is
desirable to provide a novel, highly entertaining double layer block structure so
as to either bring more fun to users or be applicable to advertisement.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a double layer block
15 assembly comprising four single layer blocks, two first double layer blocks, two
second double layer blocks, four outer stickers, and four inner stickers wherein
an upper layer section of the assembly comprises two single layer blocks, two
upper layers of two first double layer blocks, and two upper layers of two
second double layer blocks; a lower layer section of the assembly comprises
20 the other two single layer blocks, two lower layers of two first double layer
blocks, and two lower layers of two second double layer blocks; the outer
stickers are adhered to a top and a bottom surfaces of the assembly; and the
inner stickers are adhered between the upper layer section and the lower layer
section of the assembly so that the assembly is operative to turn about two
25 parallel axes endlessly. By utilizing the present invention, a variety of shapes
and colorful patterns for advertisement also can be formed.

The above and other objects, features and advantages of the present

invention will become apparent from the following detailed description taken with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGS. 1a, 1b, 1c, 1d, 1e, 1f, 1g, and 1h are exploded views of a first preferred embodiment of double layer block structure according to the invention for illustrating first, second, third, fourth, fifth, sixth, seventh, and eighth shapes thereof respectively;

FIGS. 2a, 2b, 2c, 2d, 2e, 2f, 2g, and 2h are perspective views of the assembled structure shown in FIGS. 1a to 1h respectively; FIG. 3 is a plan view of an expanded sticker according to the first preferred embodiment of the invention;

FIGS. 4a and 4b are perspective views showing the sticker to be adhered to the blocks in the seventh and eighth shapes respectively;

FIG. 4c is a perspective view of the expanded sticker shown in FIG. 3;

FIGS. 5a and 5b are perspective views showing the sticker to be adhered to the blocks in the first and second shapes respectively;

FIG. 6 is a perspective view of another configuration of the structure; and

FIGS. 7a, 7b, 7c, and 7d are perspective views of a second preferred embodiment of double layer block structure according to the invention for illustrating first, second, third, and fourth shapes thereof respectively.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1a, 2a, 3, and 5a, there is shown a double layer block structure constructed in accordance with the invention. The original structure is a disc. The structure comprises four single layer blocks 1, two first double layer blocks 21, two second double layer blocks 22, four outer stickers 31, and four inner stickers 32. An upper layer section of the structure comprises two single layer blocks 1, two upper layers 211 of two first double layer blocks 21, and two

upper layers 221 of two second double layer blocks 22. A lower layer section of the structure comprises the other two single layer blocks 1, two lower layers 212 of two first double layer blocks 21, and two lower layers 222 of two second double layer blocks 22. The outer stickers 31 are adhered to the top and bottom surfaces of the structure. The inner stickers 32 are adhered between the upper layer section and the lower layer section of the structure. FIG. 2a is a perspective view of the assembled structure in the first shape. The structure is able to upwardly turn either about two parallel axes 4 on the top surface or about two axes 4 on the bottom surface (as detailed later) since the outer stickers 31 are adhered to the top and bottom surfaces of the structure. The single layer blocks 1 of the lower layer section turn from a folded line 5 opposite the axes 4 to form as a second shape as the first double layer blocks 21 and the second double layer blocks 22 turn about axes 4 respectively (see FIG. 2b). The axes 4 of the upper layer section and the lower layer section can be seen in the second shape. However, it is impossible of dividing the structure into two portions from the folded line 5 opposite the axes 4 if the structure turns about the axis 4 in the lower layer section. That is, it is only allowed to turn about the axis 4 in the upper layer section to form as a third shape (see FIG. 2c). Next, it is possible of changing the axis 4 to form as a fourth, fifth, sixth, seventh, or eighth shape (see FIGS. 2d to 2h). The structure can change from the first shape to the eighth shape directly by turning. This is best illustrated in FIGS. 1a to 1h, exploded views of a first preferred embodiment of double layer block structure according to the invention.

In the first, third, fifth, or seventh shape, it is possible of changing the axis 4. In other words, it is possible of not only changing into the second, fourth, sixth, and eighth shapes by turning but also returning to the eighth, second, fourth, and sixth shapes by turning. FIGS. 2a and 6 show the structure in the first

shape. The structure will form as the second shape by turning about the axis 4 in FIG. 2a. Alternatively, the structure will form as the eighth shape by turning about the axis 4 in FIG. 6.

Referring to FIGS. 4a and 4b, they are perspective views showing the sticker to be adhered to the blocks in the seventh and eighth shapes respectively. FIG. 4c is a perspective view of the expanded sticker shown in FIG. 3.

FIGS. 7a to 7d are perspective views of a second preferred embodiment of double layer block structure according to the invention for illustrating first, second, third, and fourth shapes thereof respectively. In the embodiment, the original structure is a parallelepiped having a square shape viewed from either the top or the bottom. The turning direction of the second embodiment is opposite to that of the first embodiment. But both can turn endlessly. Also, different combinations of the inner stickers and the outer stickers can be formed in different shapes by turning in either embodiment.

While the invention herein disclosed has been described by means of specific embodiments, numerous modifications and variations could be made thereto by those skilled in the art without departing from the scope and spirit of the invention set forth in the claims.